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FY-85-1702

**EMERGENCY RESPONSE REPORT**

**ON**

**PCB SPILL**

**BATH ELECTRICAL SYSTEMS, INC.**

TDD 6-8510-987

**CLUTE, BRAZORIA COUNTY, TEXAS**

**Prepared for**

**EPA - REGION VI  
EMERGENCY RESPONSE BRANCH**

**Gerald Fontenot,  
Deputy Project Officer**

**By**

**Roy F. Weston, Inc.  
Technical Assistance Team**

**DATE**

**November 11, 1985**

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WRITTEN REPORT

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TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION  
EPA CONTRACT 68-01-6669

November 29, 1985

TO: Mary Ellen Crowley, OSC  
EPA Region VI, Emergency Response Branch

THRU: Gerald Fontenot, Deputy Project Officer  
EPA Region VI, Emergency Response Branch

THRU: Michael G. Warner, TATL - Region VI *MW*  
Roy F. Weston, Inc.

FROM: *LD* Larry J. Dziuk/*RAK* Rashid A. Khalid, ATATLs - Region VI  
Roy F. Weston, Inc.

SUBJECT: Bath Electrical Systems, Inc. PCB Spill,  
Clute, Brazoria County, Texas

TDD No. 6-8510-98

FY 85-1702

1.0 SUMMARY OF EVENTS

1.1 Location

Bath Electrical Systems Incorporated (BES, Inc.) is located at 5009 N. Highway 288, Clute, Brazoria County, Texas. The company specializes in maintenance testing of electrical equipment and PCB equipment reclassification and has been in business since 1969. The corporate offices and the maintenance yard are located in the same facility. The location coordinates are latitude 29°04'50" N and longitude 92°24'45" W.

1.2 The PCB Oil Spill - Initial Situation

The BES, Inc. had four 1000 gallon capacity skid tanks placed on level ground without any dikes or fire walls around the tanks. The tanks were filled with mineral oil containing the following concentrations of PCBs.

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SPILL PREVENTION & EMERGENCY RESPONSE DIVISION

In Association with ICF Inc., Jacobs Engineering Group Inc., C.C. Johnson & Associates, Inc., and Tetra Tech, Inc.,

Tank #1	51,590 ppm PCBs
Tank #2	3,480 ppm PCBs
Tank #3	53,000 ppm PCBs
Tank #4	78,000 ppm PCBs

On the night of September 17, 1985 or in the early morning hours of September 18, 1985, these four tanks were drained off and spilled approximately 3,600 gallons of PCB oil on the yard and into a drainage ditch about 150 feet north of the discharge point. The PCB oil slowly spread and contaminated about an 800 foot section of the ditch that runs parallel to Highway 288. During rains, the ditch empties into Bayou Bastrop about 1/4 of a mile away. The spill was discovered by two BES, Inc. employees at 0715 hours on September 18, 1985.

The BES, Inc. personnel dammed the impacted section of the drainage ditch with sand, thus preventing the PCB contaminated liquid from flowing into Bayou Bastrop.

### 1.3 The Cause of Discharge

BES, Inc. reported that vandals opened the drain valves and ventilated the tank tops allowing most of the PCB oil to flow onto the ground and then into the ditch. The incident was immediately reported to the Brazoria County Sheriff's office.

### 1.4 Spill Notification

Upon discovery of the PCB spill, the BES, Inc. president, Mr. Thomas Soderman, contacted the County Health Department, the Sheriff's Department, the Texas Water Commission, and the Houston EPA Office. The Houston EPA Office advised BES, Inc. to call the EPA Hotline in Dallas to report the spill. The spill was reported at 1430 hours on September 18, 1985.

### 1.5 EPA's Efforts to Obtain Response by Responsible Parties in Spill Cleanup

The EPA's Region VI Emergency Response Branch requested the TAT to respond to the spill and brief the OSC. TAT members Frank Onellion and Rashid Khalid were dispatched to the scene.

TAT Onellion arrived at the site at 1800 hours and TAT Khalid arrived at approximately 1930 hours. They found that the ditch had been dammed and that the firm's insurance company, Liberty Mutual, had been contacted. An insurance adjuster was working to determine the cleanup costs and whether the situation would warrant coverage under their policy. The insurance issue turned out to be a key factor in the early phase of the incident, for BES, Inc. was not financially able to undertake the cleanup itself. Had insurance not covered the majority of the cleanup costs, an EPA removal action would have been necessary.

While waiting for the insurance issue to be resolved, the areas of contamination were delineated with barrier tape and BES, Inc. employees had begun pumping the contaminated oil and water from the drainage ditch into a number of skid tanks. The pumping continued into the afternoon of September 19th and approximately 8,500 gallons of water and oil were collected. At 1405 hours on September 19th, the insurance company approved the use of a bulldozer to dig the ditch but no approval was given to remove the liquid from the ditch. It was also learned that Dr. Larry Froebe, Ecology and Environment, Inc., would be arriving that evening to serve as an on-site consultant for the insurance firm. Dr. Froebe arrived and met with BES, Inc. officials, the cleanup firm officials from Rollins Environmental Services, Inc., and TAT. An estimate of \$250,000 to remove the PCB contamination was derived and relayed to the insurance company. By 0850 hours on September 20th, it was learned that the insurance company would cover the third party loss; that is, they would pay for cleaning up the off-site contamination but not the on-site contamination.

While the negotiations with the insurance company were going on, the EPA was preparing for an immediate removal action in the event a settlement could not be reached. OSC Mary Ellen Crowley and Section Chief Gerald Fontenot conducted conference calls with the BES, Inc. officials, the insurance representative and with TAT to determine if a removal action seemed imminent. It was decided to have OSC Crowley at the site to augment progress; she arrived during the early afternoon of September 20th. TAT Larry Dziuk was also dispatched to relieve TAT Khalid.

A meeting of all concerned parties was held shortly after Crowley arrived. She issued an ultimatum that EPA would

undertake the cleanup at 1600 hours if an agreement could not be reached to begin the private party cleanup. Although the insurance company had agreed to pay for the off-site cleanup, there were problems with the cleanup contractor receiving the proper authorization to begin work and the problem of the on-site cleanup funding. OSC Crowley persisted in her demand to have all matters resolved by 1600 hours and was successful in her efforts. Rollins received word to begin work and BES, Inc. signed an agreement with Rollins to have the Rollins Operations Supervisor oversee the BES, Inc. funded cleanup on site.

#### 1.6 Spill Cleanup Actions Taken by the PRP

Cleanup began that evening (September 20th) with vacuum trucks being used to remove the remaining water and oil from the ditch. The liquid was taken to the Rollins facility in Deer Park, Texas, for disposal. Vacuuming operations were completed by 2355 hours on September 20th and further cleanup work was suspended until 0730 hours on September 21st. A security guard was posted at the site until work resumed.

The crew arrived, prepared for work, and had their safety meeting by 0815 hours on September 21st. The events that day involved vacuuming out the water which had seeped into the ditch overnight. The PCB oil which had been pumped from the ditch by BES, Inc. personnel was transferred to two vacuum trucks for transport to the Rollins incinerator. Three loads of lime were brought in and applied to the mud in the ditch. The track hoe was used to mix the lime with the mud, thereby reducing the amount of free water in the soil. The liming operation was necessary to "solidify" the soil for disposal purposes, but the dust created during the process was of concern to the Brazoria County Health Department on-scene representative, Mr. R. A. Kees. Efforts were made to minimize the dust problem but not much reduction could be achieved. OSC Crowley advised that trees which had collected the airborne particles be washed with a water stream after the dust-producing portions of the operations were completed. The cleanup contractor complied with this request.

The liming and mixing operation was completed at 1447 hours; at that time the track hoe operation began the process of the removal of seven culverts which traversed the drainage

ditch within the affected area. At the same time, the BES, Inc. crew was scraping soil from the on-site affected area. The soil was removed to a visibly clean zone which varied in depth from 2 to 24 inches below the surface. The soil was combined into two piles, a large pile and a smaller pile, to minimize the possibility of contaminating the "clean" zone with the backhoe wheels.

By 1814 hours, Rollins had determined the final quantity of liquids transported for incineration; that figure was 21,100 gallons.

Work proceeded into the night of September 21st, and by 2100 hours, the first truck was loaded with the solidified mud. Truck scales were brought to the site so that each truck could be loaded to its maximum allowable weight since transportation costs would be significant. Rollins had arranged for disposal of the solids at U. S. Ecology, Beatty, Nevada.

The work into the night was necessary because there was a forecast of rain in the next day or two. There was a certain amount of noise associated with the loading operation and at 0030 hours on September 22nd, one of the area residents came to the site to complain about the disturbance. She was told that the noise was regrettable, but nevertheless necessary to avoid a much larger problem if rain occurred. The resident was not satisfied with the answer, but did not complain further. OSC Crowley contacted EPA legal counsel for advice in case further complaints were received.

By 0245 hours on September 22nd, a total of 17 trucks had been loaded so work was stopped at 0325 hours. There was a shortage of trucks available for hire on the weekend, so a contingency plan was developed to pile the contaminated soil in a single area in the south portion of the ditch. In the event of rain, a single pile would be easier to cover with plastic than an irregularly contoured ditch bottom. If the ditch were scraped to an uniform depth, a plastic liner could be more effective in preventing rain water from contacting the scraped sections until sampled and the sample results from the so-called clean zone could be obtained.



Activities resumed at 0650 hours, but it became evident that only a few trucks would be coming. By this time almost two thirds of the ditch had been cleaned and shaped. A roll of 60 mil thickness plastic sheeting (34 feet wide and 600 feet long) was located and placed on standby in case of rain. A sampling plan was developed which involved taking 34 grab samples from the bottom of the ditch at 24-foot intervals and composite samples from each of the four quadrants on the BES, Inc. property. A background sample also would be taken; its location was decided to be the ditch bottom immediately south of the south dam (water flows north in the drainage ditch). EPA also wanted six split samples for quality assurance purposes (samples relinquished to EPA lab on October 4, 1985).

The total loads of solidified mud hauled on September 22nd was 11, making a grand total of 28 loads (44,000-47,000 pounds per load) hauled. The sampling of the cleaned two-thirds portion of the drainage ditch and the on-site cleaned quadrants was also conducted. The samples were taken to an area lab, MBA Laboratories, for analysis. A tandem truck was brought in and was used to transfer the remaining soil in the ditch to a single pile in the south portion of the ditch.

The cleanup had progressed to a point where the OSC no longer considered it necessary to stay; she departed for Dallas at 1730 hours. The TAT departed for home at 2004 hours to return on September 23rd.

The activities of September 23rd consisted of loading trucks with solidified mud, as adequate numbers of trucks were available. The tandem truck was decontaminated after the ditch soil was moved into a single pile. The TAT checked with Dave Sullivan of EPA on TSCA temporary storage requirements for the on-site soil as BES, Inc. officials were not financially prepared to remove all of it at the present time. Brazoria County Health Department representative Kees visited the site and asked for a copy of the TAT's report when it was prepared. Finally, all material considered to be heavily contaminated was removed from the ditch by 1600 hours. The grand total of loads hauled to Beatty, Nevada was 42 for heavily contaminated soil. The last portion of the ditch was sampled and the samples were taken to the laboratory for analysis. TAT Dziuk was relieved by TAT Khalid at 1900 hours.

Sample results were being made available on September 24th and 25th. From earlier conversations with the state (i.e., TWC), a cleanup level of 10 ppm and below was considered acceptable. Several of the samples collected from the ditch bottom contained PCBs in excess of 10 ppm, so further excavation was necessary. BES, Inc. officials had placed the majority of their contaminated soil on-site into two 50 cubic yard mud tanks on September 25th and 26th and covered the tanks with plastic. After the ditch was further excavated, it was covered with plastic until the second set of sample results could be obtained; when the results were returned, there was still one "hot" spot remaining (> 50 ppm). This 24 foot section was excavated on September 28th, and resampled.

At least one sample still exceeded the 10 ppm desired concentration and the TWC was again consulted on cleanup levels. It was decided that individual areas could contain up to 50 ppm as long as there were only isolated areas at which this concentration remained.

The on-site portion of the cleanup was subject to different cleanup levels. The EPA draft policy (Daryl Mount, TSCA Section, EPA Region VI) stated that material spilled which had a PCB content greater than 25 ppm, would have a desirable cleanup level of 25 ppm. There was some flexibility on the 25 ppm limit, but EPA would be satisfied if all quadrants were cleaned to 25 ppm or below. That cleanup level was finally achieved after the third set of samples were taken on September 27th, and analyzed.

After the PCB levels in the drainage ditch were reduced to the EPA and TWC acceptable levels, the restoration of the ditch started on September 30th. This included filling with clean soil, regrading of banks, placement of culverts, construction of driveways and hydroseeding.

On October 23rd, TAT Warren Zehner visited the site to obtain photographs on the restored ditch and the cleaned BES, Inc. property. He found that wet weather had delayed the hydroseeding, but all culverts had been installed and the ditch was restored to better than original conditions (see "before" and "after" photographs). He also learned that BES, Inc. officials had only 65 cubic yards of soil remaining in boxes on the site. The soil was to be removed to a landfill prior to January 1, 1986 which is when the

temporary storage condition under TSCA expires. The on-site TAT action was complete with the final visit on October 23rd. The hydroseeding of the ditch banks was completed on November 15th and thus, the restoration of the impacted area to the prespill condition was accomplished.

## 2.0 CONCLUSIONS AND COMMENTS

The reportedly lack of financial resources of BES, Inc. and insurance company's hesitancy to immediately commit funds for cleanup created a potentially serious problem in the first 36 hours after the spill. It was imminent that federal takeover would be necessary to contain the PCB contamination within the diked drainage ditch area. However, several positive developments in the next 24 hours averted that situation and the PRP started cleanup operations. Mary Ellen Crowley, the OSC, and Gerald Fontenot, the Section Chief's, persistent demand of immediate action to cleanup the spill resulted in the Liberty Mutual's hiring a consultant to quickly assess the situation for cleanup. Dr. Larry Froebe of Ecology and Environment, Inc. was quite valuable in getting the PRP cleanup going because of his past experience as a TAT contractor to EPA. He was able to convince the insurance company which he represented (as a consultant) that the cleanup was entirely necessary. Someone with less than Dr. Froebe's experience, in the TAT's opinion, would have had difficulty in getting the insurance company to move as quickly as they did. Had that been the case, an EPA cleanup would have been an unavoidable consequence.

Once the financial matters were settled, the cleanup of the impacted ditch and the BES, Inc. yard progressed very smoothly. Rollins utilized all available resources to remove the contaminated materials from the drainage ditch and the threat of PCB contamination of Bayou Bastrop was greatly reduced. The TAT and the OSC closely monitored the cleanup operations, the sampling of the ditch and the yard after excavation, and the development of further plans of action based on analytical results. The TAT also closely monitored the health and safety of workers during cleanup and sampling operations.

The PCB contamination in the spill area and the drainage ditch have been reduced to the levels acceptable to the Texas Water Commission and the EPA, Region VI. Most of the

PCB contaminated materials have been removed and disposed of according to the EPA regulations. A small quantity of PCB contaminated material is stored on-site pending financial arrangements for disposal. The PRP has complied with the appropriate regulations and cooperated fully during the cleanup.

Communications with the Texas Water Commission regarding the PCB cleanup levels had been a problem during this operation. However, the OSC was able to get through to the appropriate district level personnel and resolved the problem without delays in removal operations.

The TATs have been very satisfied with the outcome of the cleanup operations. The whole operation was well coordinated and was executed very professionally without any significant problems or setbacks.

Attachments 1 and 2 summarize the quantities of PCB contaminated materials removed and removal costs, respectively.

**ATTACHMENT NO. 1****QUANTITIES OF PCB CONTAMINATED MATERIALS  
SHIPPED FOR DISPOSAL DURING CLEANUP OPERATIONS  
AT BES, INC. PCB SPILL, CLUTE, BRAZORIA COUNTY, TEXAS****PCB CONTAMINATED SOLIDS**

Contaminated soil removed from the ditch (Shipped to Beatty, Nevada site)	946 cubic yards
Sludge from the storage tanks (Not shipped as of November 22, 1985)	1,000 pounds
4 drums containing debris and clothing used during cleanup (Not shipped as of November 22, 1985)	600 pounds
On-site contaminated soil (Shipped to Beatty, Nevada)	14 cubic yards
On-site contaminated soil (Shipped to Emile, Alabama)	6 cubic yards
On-site contaminated soil (Not shipped as of November 22, 1985)	65 cubic yards

**PCB CONTAMINATED LIQUID**

Sent for incineration by Rollins	21,100 gallons
Stored in 55-gallon drums for disposal (Not incinerated yet)	1,980 gallons

Source of Information: Bill Loonly of Rollins Environmental Services, Inc. and Thomas Soderman of BES, Inc.

**ATTACHMENT NO. 2****COST OF PCB CONTAMINATED MATERIAL CLEANUP  
AND DISPOSAL AND DITCH RESTORATION PAID FOR BY THE  
PRP AND THE INSURANCE CARRIER**

Contaminated soil and liquid removal, from the ditch, transport and disposal (Rollins)	\$508,524.00
Cost of liquid vacuumed by BES, Inc. billed to insurance company	\$ 8,138.00
Drainage ditch restoration	\$ 43,682.00
On-site soil removal and disposal	\$ 30,000.00
BES, Inc. services billed to insurance company for cleanup operations	\$ 59,990.00
Cost of shipping and disposal of liquid and solids stored at the site (cost proposal)	\$ 21,194.00
<b>TOTAL COST</b>	<b>\$671,528.00</b>

Source: Thomas Soderman, President, BES, Inc.

**APPENDIX A****CHRONOLOGY OF EVENTS****September 18, 1985**

- 0715 Hours: Dennis Janak, Vice President of Operations, and Don Smith, General Manager, I&E Division, Bath Electrical Systems (BES, Inc.), discovered that vandals had drained approximately 3600 gallons of mineral oil containing PCBs from four skid tanks. The tanks were located at BES Maintenance Yard, 5009 N. Highway 288, Clute, Brazoria County, Texas. The skid tanks contained 1000 gallons of oil each. These tanks had no padlocks and were not placed in a diked area. About 100 gallons remained in each tank that was not drained. The PCB oil was drained at some time during the night of September 17th or early morning hours of September 18th. The oil spread onto a 100' X 150' area of BES Property and into an 800-foot section of drainage ditch bordering Texas Highway 288, which runs along the front of BES property. The ditch drains into Bayou Bastrop about 1/4 of a mile north of the property.
- 0830 Hours: BES, Inc. called Rollins Environmental Services for cleanup and also ordered several truckloads of sand to dam the 800 foot section of the impacted ditch.
- 0900 Hours: Tom Soderman, President of BES, Inc., contacted the local authorities, the county sheriff's office, and the Texas Water Commission. He also called the EPA Houston office.
- 1100 Hours: Rollins (cleanup contractor) mobilized to dam the ditch with sand and started vacuuming the contaminated liquids with a vacuum truck.
- 1400 Hours: The EPA Houston office returned BES's call and advised BES to call the EPA Region VI office in Dallas to report the PCB spill.
- BES, Inc. called the EPA Dallas, Emergency Response Branch, and reported the spill.
- 1800 Hours: TAT member Frank Onellion arrived at the spill site and photo-documented the spill.

- 1900 Hours: A Liberty Mutual Insurance Company Adjustor arrived at the spill site to assess the situation and to determine the insurance company's liability.
- 1930 Hours: TAT member Rashid Khalid arrived at the spill site. He learned that Rollins had vacuumed approximately 800 gallons of contaminated liquid from the ditch and then stopped work. Rollins wanted a more definite guarantee of payment before continuing. BES, Inc. was waiting for the insurance carrier to commit funds. BES, Inc. would continue to vacuum liquid from the ditch with their own 2" pump starting in the morning.
- 2200 Hours: TAT Onellion left the site for Houston.
- 2230 Hours: TAT called Mary Ellen Crowley, OSC, and updated her on the situation.
- 2300 Hours: TAT Khalid met with Dennis Janak of BES, Inc. and developed a personal safety plan for tomorrow's work.
- Mary Ellen Crowley called to let TAT know that BES, Inc. could start vacuuming PCB contaminated liquid from the ditch tomorrow morning. BES, Inc. could not continue due to lack of safety equipment.
- 2315 Hours: TAT member Khalid left the site for the night.

**September 19, 1985**

- 0830 Hours: TAT member Khalid arrived at the spill site and met with Tom Soderman and Dennis Janak of BES, Inc. They had sent someone to Vallen Supply Company in Freeport, Texas to pick up personal safety gear.
- 0915 Hours: TAT Khalid assisted in staking the contaminated ditch with yellow caution tape and PCB caution stickers.
- 0930 Hours: Kenneth Cooper of EPA Houston office arrived at the site.



- 1018 Hours: TAT Khalid called Mary Ellen Crowley and Gerald Fontenot on a conference call. He reported the lack of any progress from the insurance carrier to commit funds. He gave details of spill area and alternatives for storing materials if EPA would have to take over the cleanup.
- 1045 Hours: TAT member Onellion arrived at the site.
- BES, Inc. employees started vacuuming contaminated liquid from the ditch. TAT Khalid discussed the inadequate safety protection with Mark Ouri, the cleanup supervisor.
- 1250 Hours: One skid tank was filled with contaminated liquid, approximately 1000 gallons. BES will start vacuuming into a second tank.
- 1300 Hours: Tom Soderman, of BES, Inc., told the TAT that the insurance company did not want to commit the resources before conducting a more detailed assessment. They will send a consultant to the site to assess the situation.
- Elani Gray, of Texas Water Commission, arrived at the site.
- 1330 Hours: BES, Inc. started pumping PCB contaminated liquid into a second skid tank. The company is still using one pump.
- 1400 Hours: TAT member Onellion left the site for Houston.
- Liberty Mutual Insurance Company tentatively approved a bulldozer to remove the contaminated soil from the drainage ditch, but no definite go-ahead signals.
- 1438 Hours: Conference call with Mary Ellen Crowley, Gerald Fontenot, Ken Cooper, of Houston EPA, and TAT Khalid. TAT Khalid relayed the problem that BES, Inc. was having with the insurance carrier. Gerald Fontenot will call Terry Hickman, the insurance adjuster.

- 1742 Hours: Conference call with Gerald Fontenot, Mary Ellen Crowley, Kenneth Cooper and Tom Soderman. Mary Ellen Crowley, the OSC, issued a verbal demand notice to BES, Inc. EPA will take over the cleanup if satisfactory cleanup commitment was not made by 1600 hours on September 20, 1985. The OSC will be flying in tomorrow afternoon.
- 2100 Hours: TAT Khalid met at the site with Larry Froebe of E&E (a consultant of Liberty Mutual), Tom Soderman of BES, Inc., and Ned Winders of Rollins.
- Larry Froebe estimated the cleanup cost of the impacted ditch to be \$250,000. He will pursue the insurance company to take immediate steps before a rainfall occurs resulting in additional cleanup.
- 2330 Hours: All parties left the site. A security guard is on watch.

**September 20, 1985**

- 0800 Hours: TAT Khalid called Mary Ellen Crowley and told her that Larry Froebe of E&E, Inc. was recommending to the insurance company to immediately mobilize for cleanup. Dr. Froebe should hear from the insurance company later this morning.
- 0850 to  
1600 Hours: Several conference calls were made between Gerald Fontenot, Dr. Froebe, BES, Inc. personnel, Rollins Environmental Services' personnel and Liberty Mutual's corporate headquarter's personnel. Liberty Mutual Insurance Company had agreed to cover the third party loss (cleanup of the ditch) and BES, Inc. would pay for the on-site cleanup. However, contracts needed to be signed and Rollins would not mobilize a cleanup crew until the company received a hard copy of the contract between Rollins and the insurance company for cleanup services.
- 1300 Hours: TAT Larry Dziuk arrived at the spill site.
- 1320 Hours: Mary Ellen Crowley, the OSC, arrived at the spill site.

- 1400 Hours: The OSC reiterated her demand to BES, Inc. that if the PRP was unable to show evidence of significant progress towards making cleanup arrangements by 1600 hours, the EPA would take over the cleanup operations.
- 1600 Hours: An agreement was signed between Liberty Mutual and Rollins, Inc. to cleanup the PCB spill that would include both off-site and on-site contaminated materials.
- TAT Khalid left the spill site for Baton Rouge. TAT Dziuk would assist the OSC.
- 2100 Hours: One backhoe, that was ordered by BES, Inc., arrived at the scene.
- 2120 Hours: One Rollins vacuum truck arrived. Rollins started vacuuming the remaining PCB contaminated liquid from the 800 foot section of the drainage ditch.
- 2400 Hours: Rollins finished vacuuming liquid from the ditch. The ditch will be allowed to recharge and the liquid that seeped out will be vacuumed in the morning.

**September 21, 1985**

- 0021 Hours: One vacuum truck loaded with PCB contaminated liquid left the spill site for Rollins incineration facility in Houston. Work stopped for the night.
- 0650 Hours: TAT Dziuk arrived at the spill site.
- 0658 Hours: OSC Mary Ellen Crowley arrived at the site.
- 0746 Hours: First vacuum truck (Rollins) arrived at the site.
- 0753 Hours: TAT Dziuk convened a safety meeting for cleanup work.
- 0800 Hours: Five employees of BES, Inc. started to scrape contaminated soil from the yard with a backhoe.

- 0815 Hours: Cleanup work began at the ditch. The backhoe was pushing the water to one side and the vacuum truck was picking it up.
- 0832 Hours: Rollins began to transfer 8500 gallons of PCB liquid to vacuum trucks that BES, Inc. had collected in skid tanks.
- 1024 Hours: Liming operation (calcium oxide, anhydrous) began. Lime will be mixed with the soil in the ditch to absorb water and thus to solidify the material for shipping to a disposal site in Beatty, Nevada.
- 1208 Hours: Weather report indicated a good chance of rain. It was decided that the operation would continue through the night. The excavated portion of the ditch will be lined with 60 mil plastic sheets.
- 1312 Hours: Liming of the whole ditch is completed. Backhoe is within an hour of completing mixing of lime with the soil.
- 1450 Hours: Rollins started removing the seven culverts.
- 1633 Hours: Contaminated soil from the yard is piled at one spot.
- 1638 Hours: One vacuum truck arrives to pick up the remaining contaminated liquid.
- 1930 Hours: The first 40-foot bed transport truck arrived at the site.
- 2021 Hours: The lighting system at the ditch is fixed in place for working through the night.
- 2400 Hours: The first truck was loaded with soil and was weighed at the scale placed at the site.

Two Brazoria County Sheriff's Deputies arrived. A neighbor had complained of dust and noise.

**September 22, 1985**

- 0030 Hours: The citizen that had complained arrived at the site. TAT Dziuk explained urgency of cleanup operation.
- 0245 Hours: Seventeen trucks were loaded with contaminated soil from the ditch. Only two more trucks were available.
- 0325 Hours: Cleanup operation halted until morning.
- 0650 Hours: TAT Dziuk and OSC Crowley arrived on the scene.
- 0908 Hours: The two remaining trucks on-site have been loaded. Chances of getting more trucks today are slim. Contingency plan was discussed. The excavated material will be piled at the south end of the affected ditch. A layer of 60 mil plastic will cover the consolidated material.
- 1140 Hours: TAT Dziuk assisted Rollins in developing a sampling plan. The TAT discussed personnel safety with Rollins Safety Coordinator, Jesse Hicks.
- 1300 Hours: A meeting was held to work out potential problems related to excavated material consolidation and covering. A 600 foot roll of 60 mil plastic was ordered to be used to cover the excavated ditch and the dirt pile in case of rain.
- 1400 Hours: Soil sampling of excavated ditch for PCB analysis started. TAT Dziuk took four samples for EPA split.
- 1404 Hours: Two empty transport trucks arrived.
- 1445 Hours: Sampling of 100 feet of northern side of ditch completed. The crew also took four samples from the BES property where the spill had occurred and the contaminated soil was excavated. Samples will be taken to MBA Laboratories for PCB analysis.
- 1500 Hours: Nine more trucks arrived. A total of 28 trucks will be loaded today.
- OSC Crowley will be leaving shortly for Dallas.

1800 Hours: Took samples for the EPA from the drainage ditch.

1804 Hours: TAT Dziuk left for Houston.

**September 23, 1985**

0800 Hours: TAT Dziuk arrived at the spill site. Four trucks were on the site. A plastic roll of 60 mil was also at the site. All excavated soil was mounded on the south side of the ditch. Trucks were being loaded between 44,000 to 47,000 pounds on each.

0930 Hours: TAT Dziuk called Mary Ellen Crowley, the OSC, and recommended TAT Khalid to monitor the cleanup tomorrow.

1015 Hours: Mr. Kees, of Brazoria County Health Department, visited the site and indicated no problems with the cleanup operation.

1300 Hours: Mr. Lee O'Gorman, Director, Brazoria County Health Department, stopped by to review the cleanup progress.

1400 Hours: TAT Dziuk called Dave Sullivan to check on on-site storage requirements.

1430 to 1700 Hours: TAT Dziuk assisted in sampling the remaining drainage ditch for PCB analysis.

1820 Hours: TAT Dziuk left the site to meet TAT Khalid in Houston.

1900 Hours: TAT Dziuk briefed TAT Khalid of the cleanup progress.

2020 Hours: TAT Khalid stopped at the spill site. Met with Tom Soderman and learned that PCB analytical results were expected by 2300 hours. Rollins crew was gone for the night.

2100 Hours: TAT Khalid left the site.

**September 24, 1985**

- 0800 Hours: TAT Khalid arrived at the spill site and met with Bill Looney of Rollins at the office. The PCB analysis was not complete due to interferences.
- 0855 Hours: TAT Khalid met with Tom Soderman of BES, Inc. and requested that on-site contaminated soil be placed in lined mud tanks until shipped for disposal.
- 0924 Hours: TAT Khalid called the OSC and updated her on the situation. The OSC suggested that TAT call the Texas Water Commission for PCB cleanup levels.
- 1030 Hours: PCB data on 12 soil samples is called in. Three of the four soil samples collected from the yard were greater than 50 ppm (the EPA limit).
- 1035 Hours: BES, Inc. started further excavation of these three areas in the yard.
- 1040 Hours: Meeting with Khalid, Froebe, Winders and Looney. Developed a contingency plan to isolate and cover ditch sections that have been excavated, and PCB analysis is not yet available.
- 1130 Hours: C. C. Hughes and R. A. Kees of Brazoria County Health Department visited the site.
- 1335 Hours: BES, Inc. collected three soil samples after excavation of three hot spots on-site was complete. TAT Khalid monitored the sampling.
- 1410 Hours: TAT Khalid called the OSC, and obtained approval to submit the three soil samples to Dow Chemical for PCB analysis. The MBA Lab is overloaded and cannot give a quick turnaround.
- 1530 Hours: Bill Hupp of Texas Water Commission, returned TAT Khalid's call. The TWC has jurisdiction over PCBs, but cleanup level is determined at the district level. Elani Gray or Tom Kerns would need to be consulted.

- 1600 Hours: TAT Khalid left the site. Results of PCB analysis on ditch samples are not yet available.
- 1810 Hours: TAT Khalid called Tom Soderman. Results of analysis for some samples were called in. Two samples have over 50 ppm PCBs.
- 1820 Hours: TAT Khalid called the OSC and relayed the lab results. She would like the hot spots in the ditch to be reexcavated and covered in case of rain.

**September 25, 1985**

- 0815 Hours: TAT Khalid arrived at the spill site. BES, Inc. wanted to know the level of PCB cleanup.
- 0845 Hours: TAT Khalid called the OSC. Mary Ellen Crowley and Gerald Fontenot would try to get the TWC for the PCB cleanup limit. At this point, EPA would settle for 50 ppm limit.
- 1000 Hours: Two 50-foot mud tanks arrived on-site for storing on-site soil.
- 1020 Hours: Mud tanks are being loaded with on-site contaminated soil.
- 1120 Hours: Talked to Mary Ellen Crowley and Gerald Fontenot. The TWC has set 10 ppm as the PCB cleanup level for the ditch. Excavate 2 to 3 inches from the hot spots. Take samples for analysis and cover the ditch with plastic. Remove the north coffer dam and let rainwater flow over the plastic.
- 1330 Hours: Rollins started vacuuming the standing water from puddles in the ditch that was collected from a rain shower the night before.
- Rollins also started scraping 2 to 4 inches of soil from the hot spots, starting at the north end of the ditch.
- 1445 Hours: PCB analysis on three on-site samples indicated one sample still higher than 50 ppm. Some more soil would need to be excavated.



- 1521 Hours: First truck is loaded and rolled off from the ditch side.
- 1640 Hours: BES, Inc. started taking samples from the ditch area that has been scraped off. TAT Khalid monitored the sampling.
- 2048 Hours: Ditch excavation is completed. Three trucks were loaded. The samples have been taken. The ditch was covered with plastic.
- 2240 Hours: All PCB results from the initial sampling on September 22-23, 1985 are back. Based on these results, 17 soil samples, with levels greater than 10 ppm, would need to be analyzed. Filled out chain of custody forms.
- 2330 Hours: TAT Khalid left the site.

**September 26, 1985**

- 0815 Hours: TAT Khalid arrived at the site. Two 20-foot sections (Flags 12 and 13) that did not get scraped last night, would need to be excavated this morning.
- 0915 Hours: Ditch scraping started.
- 1045 Hours: Daryl Mount of EPA TSCA called. The EPA draft policy requires that industrial work site spills would need to be cleaned up to 25 ppm PCB level.
- 1105 Hours: Loading of soil from the ditch on a truck started.
- 1120 Hours: Took soil samples after scraping and loading.
- 1400 Hours: One truck load of soil from the on-site pile is also rolled off. About 2 truck loads of soil still remain on the ground. BES, Inc. is arranging for another mud tank.
- 1440 Hours: Developed a plan to scrap more soil from one area on-site that had 171 ppm PCBs. This will be done tomorrow.

1510 Hours: TAT Khalid left BES, Inc. spill site for Houston.

**September 27, 1985**

1033 Hours: TAT Khalid called Tom Soderman of BES, Inc. Two ditch samples have PCBs over 10 ppm and one of these is over 50 ppm.

1120 Hours: TAT Khalid called Mary Ellen Crowley, the OSC, and updated her on the PCB results after the second excavation of hot spots. She suggested that only one section which had 1643 ppm PCBs would need to be excavated.

1145 Hours: TAT Onellion arrived at the spill site. He monitored sampling of two spots on-site for PCB analysis. All on-site soil is stored in mud tanks.

**September 28, 1985**

0800 Hours: TAT Warren Zehner arrived at the spill site. Drainage ditch Flag #17 section was scraped 3 to 4 inches deep and soil was loaded into a truck.

0930 Hours: Soil sample was taken for PCB analysis after soil removal.

0940 Hours: TAT Zehner left the site for Houston.

**September 30, 1985**

PCB analysis from Flag #17 ditch section indicated <1 ppm.

No more excavation, on-site or off-site, is necessary. The PCB levels are below the acceptable limits. The restoration of the impacted areas started.

**October 23, 1985**

1450 Hours: TAT Zehner arrived at the BES, Inc. site. He met with Don Smith of BES, Inc. All culverts were in place. Ground was prepared for hydroseeding. The on-site area was being filled in with clean soil. TAT Zehner took photographs of the restored ditch and the yard.

1530 Hours: TAT Zehner left the site for Houston.

**November 22, 1985**

1112 Hours: TAT Khalid phoned Tom Soderman, President, BES, Inc. to check the site status.

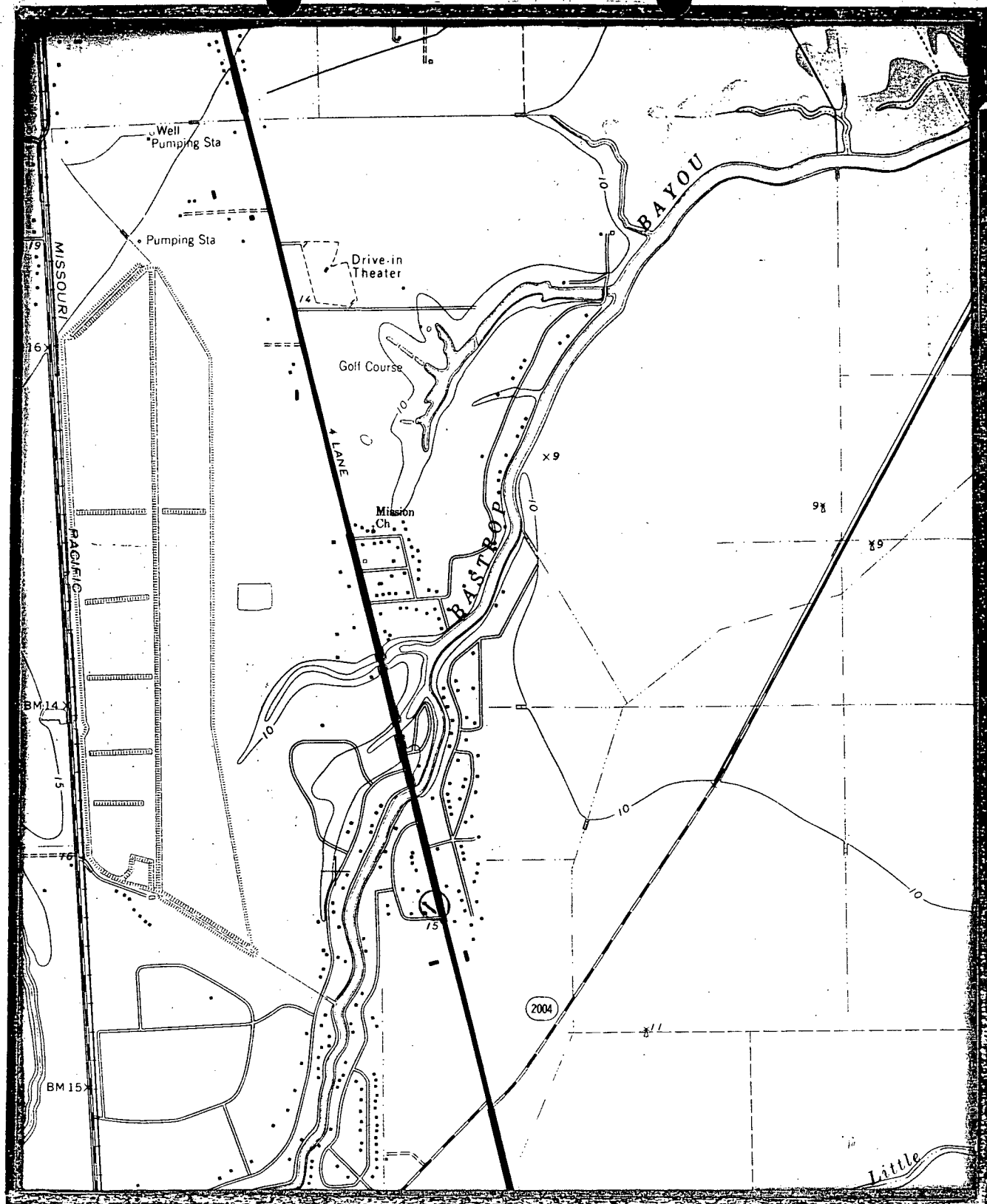
All areas around the drainage ditch have been restored and hydroseeded.

Approximately 65 cubic yards of PCB-contaminated soil is stored in mud tanks on-site and arrangements are being made for disposal at Emile, Alabama.

Thirty-six drums (55-gallon capacity) containing rinsate and contaminated liquid were stored on-site awaiting shipment for disposal at Rollins incineration facility.

Six drums containing debris, sludge from storage tanks, and contaminated clothing were stored on-site prior to disposal at Emile, Alabama.

The OSC is following up on the disposal of these PCB- contaminated materials. The BES, Inc. can store these materials on site until December 31, 1985 under TSCA regulations.



TITLE: PCB Spill - Bath Electrical  
Services, Richwood, Brazoria Co., Tx.

LOCATION: 5009 N. Hwy. 288  
Clute, Texas

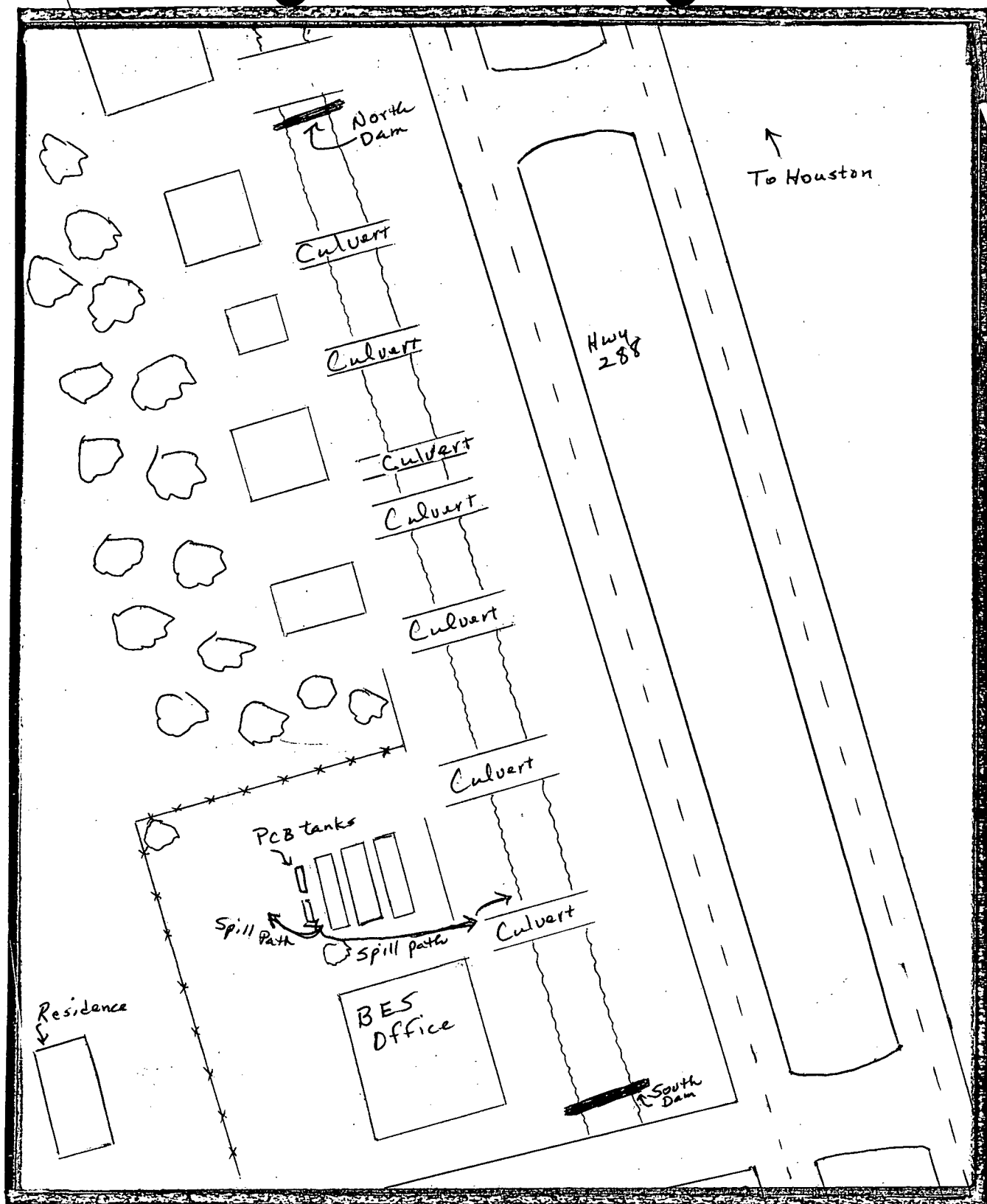
Lake Jackson Quadrangle - USDOL  
MAP: Geological Survey, 7.5 min. series

SCALE: 1:24,000

ORIGINATOR: L. Dziuk

DATE: 10/10/85 TDD: 06-8510-98

DCN. TAT-21-F-- 01789



TITLE: PCB Spill - Bath Electrical

MAP: Hand Sketch of Site

Services, Richwood, Brazoria Co., Tx.

SCALE: None

LOCATION: 5009 N. Hwy. 288

ORIGINATOR: L. Dziuk

Clute, Texas

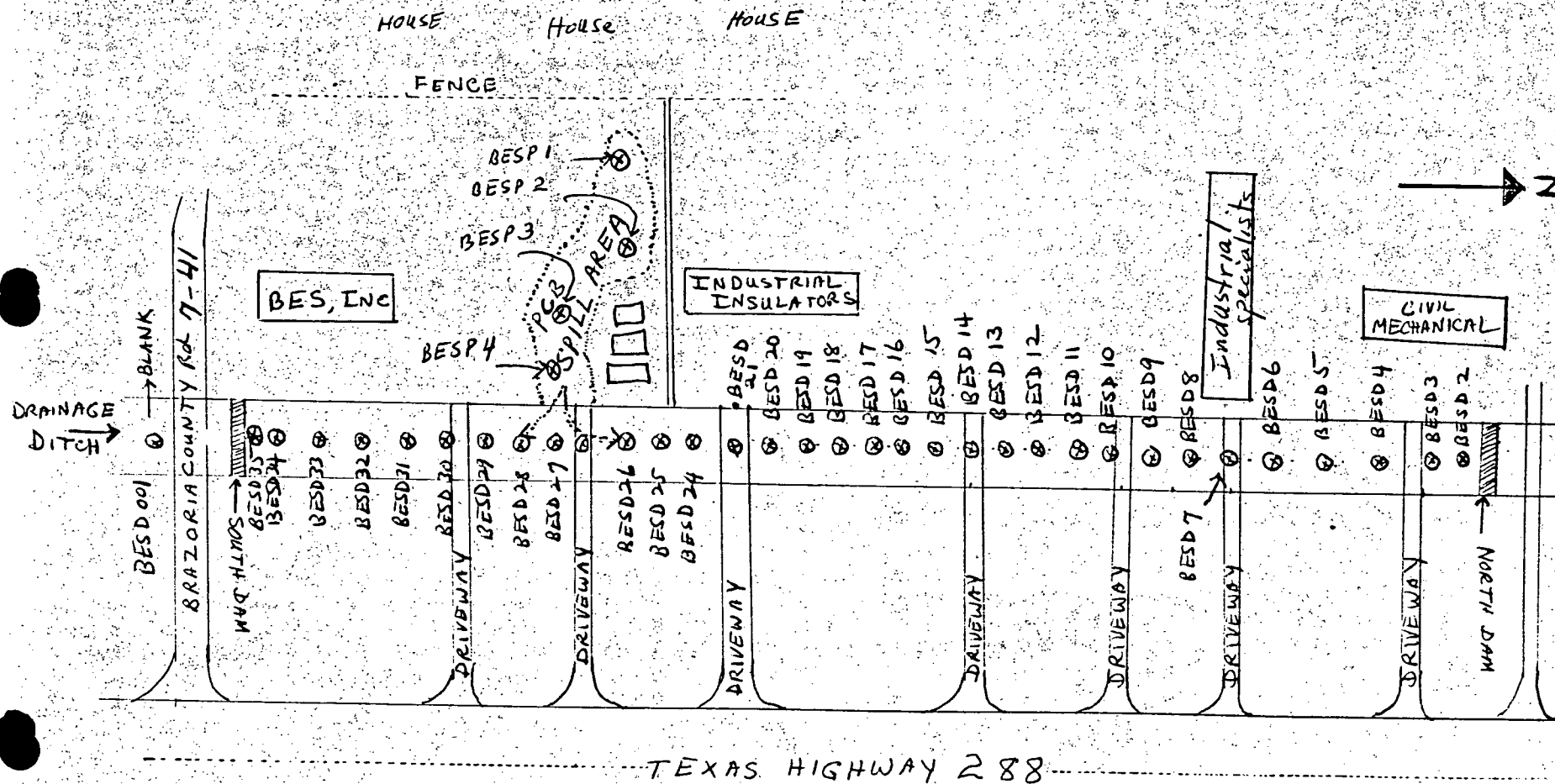
DATE: 10/10/85 TDD: 06-8510-98

DCN. TAT-21-F--01788

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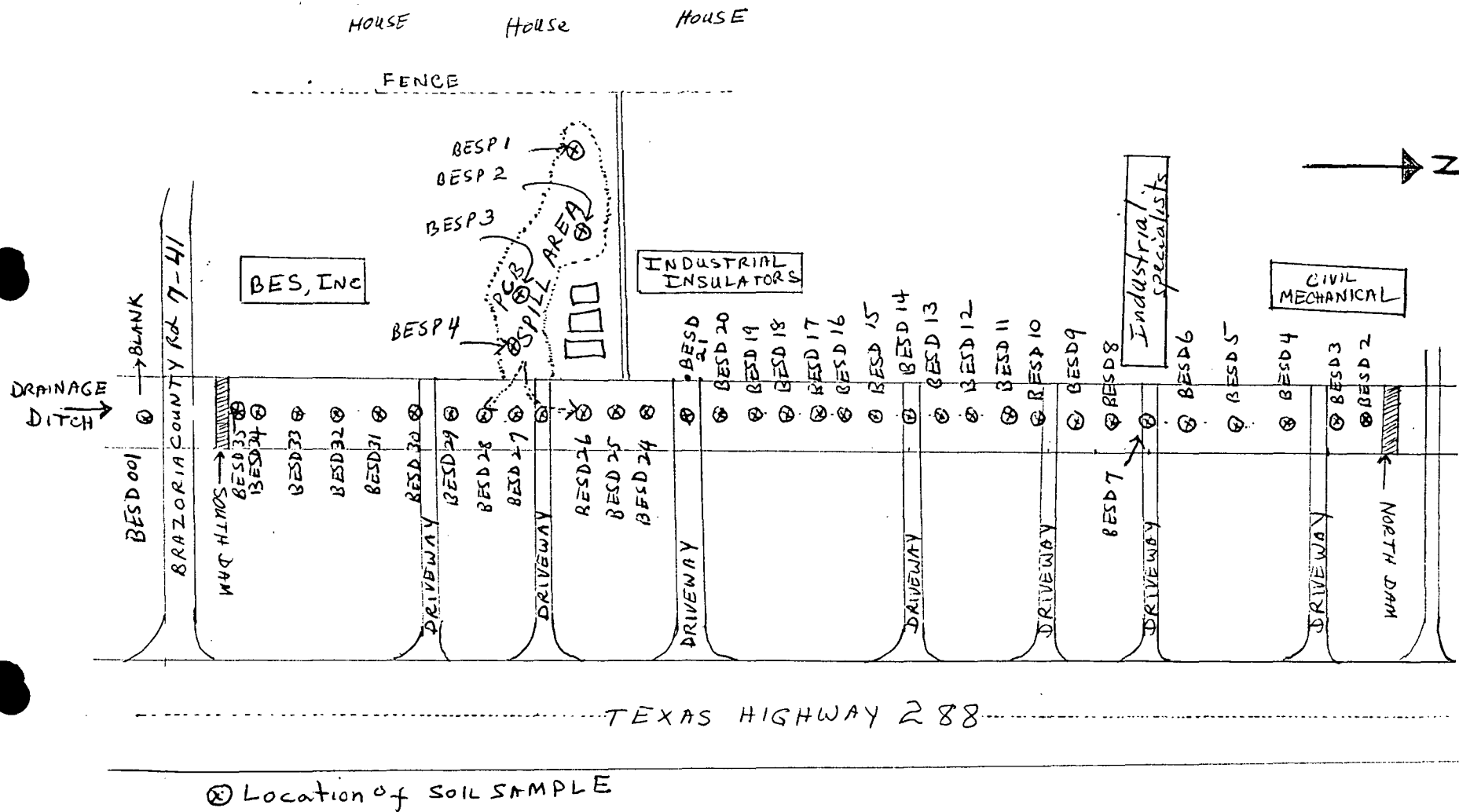
LOCATION OF  
SAMPLING POINTS

21-F-01847

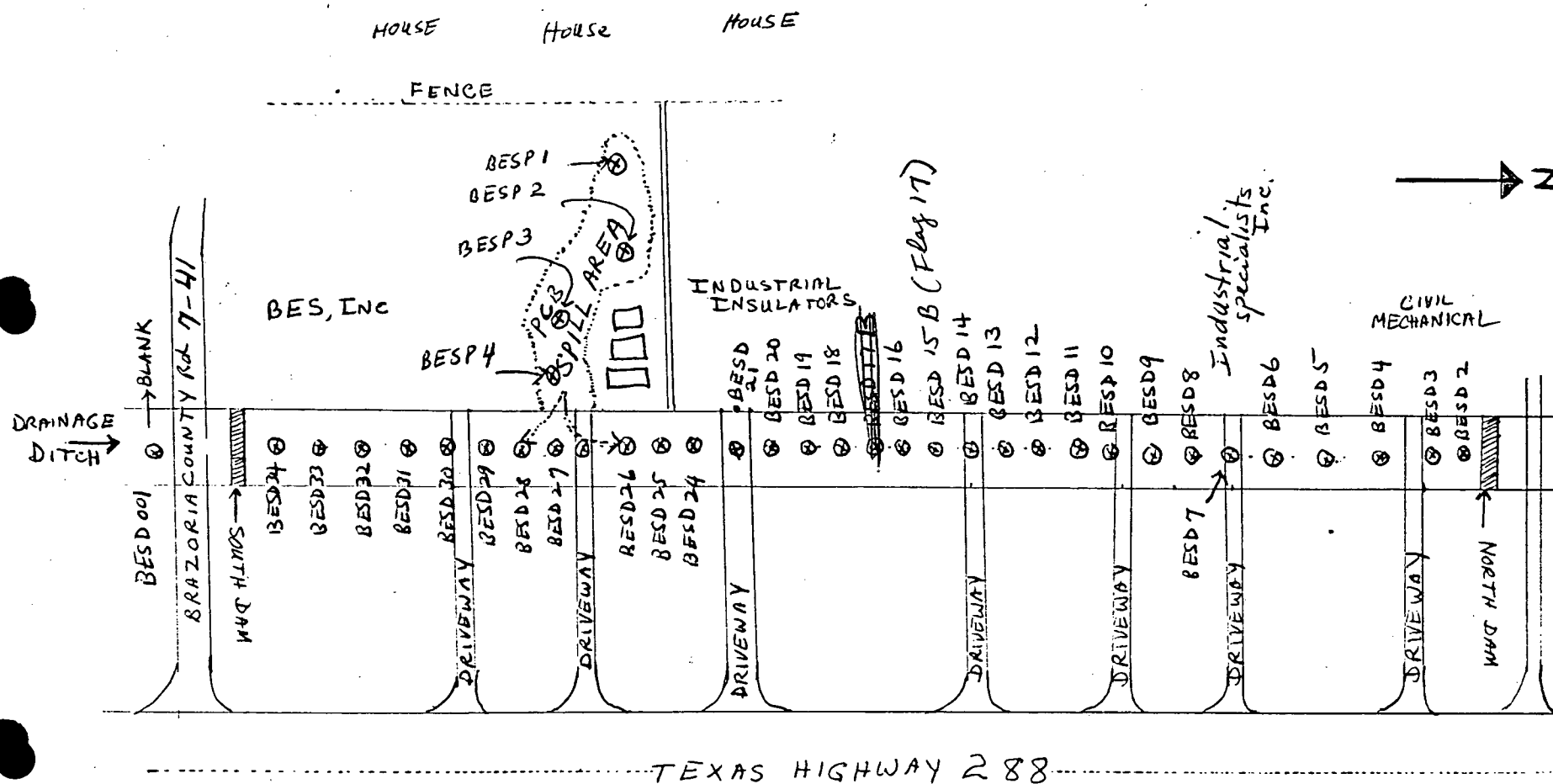


### ⊗ Location of SOIL SAMPLE

Sample Plan 1. BES, Inc. PCB Spill. Samples as identified were taken from the ditch after the initial major excavation on September 22-23, 1985.

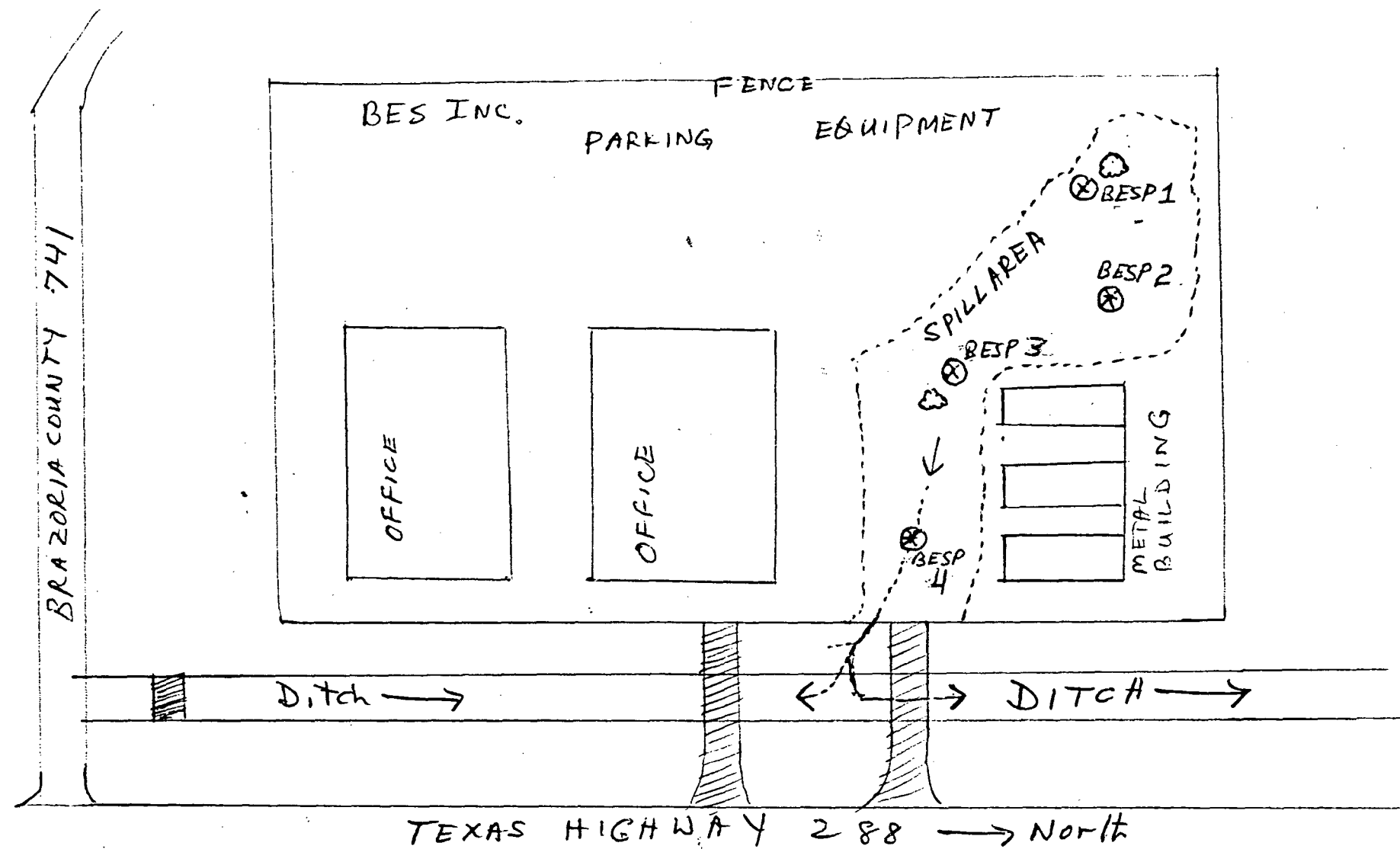






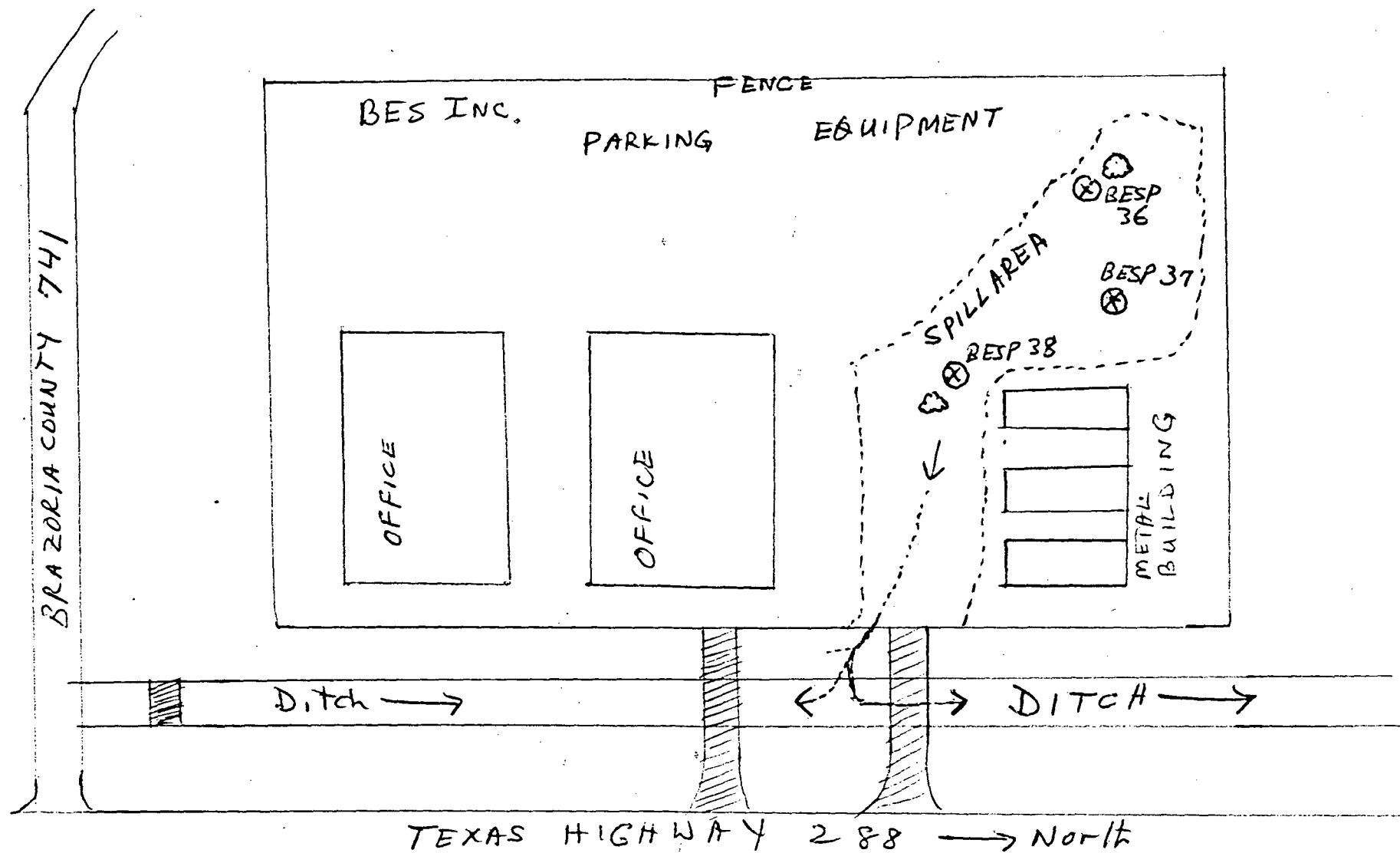
⊗ Location of SOIL SAMPLE

Sample Plan 3. BES, Inc., PCB Spill. Sample taken from the ditch after third excavation. on September 28, 1985.



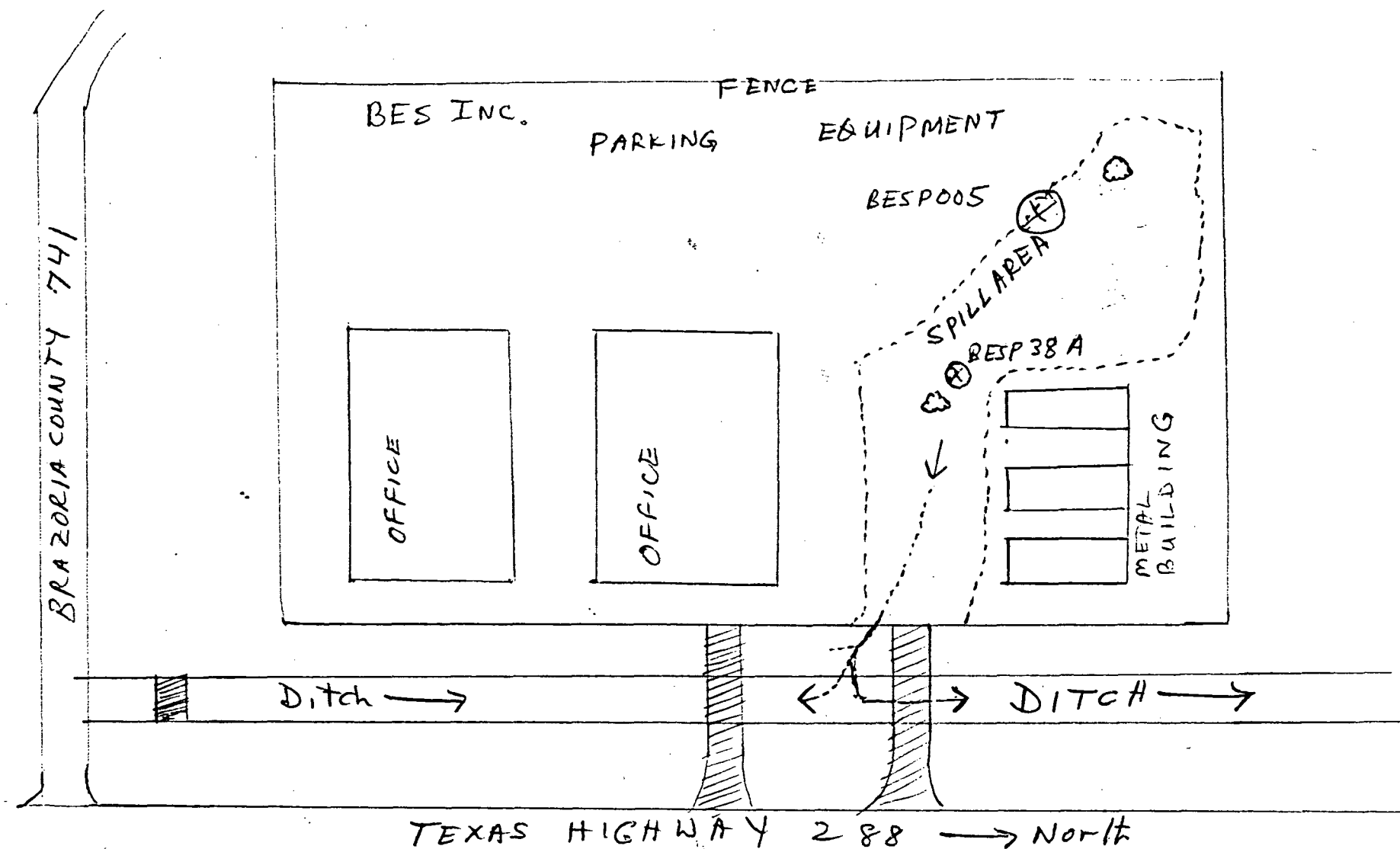
PCB SPILL, BATH ELECTRICAL SYSTEMS INC, Richwood, Brazoria County, TX

Sample Plan 4. BES, Inc. PCB Spill. Samples from the parking lot spill area were taken on September 22, 1985 after the initial major excavation.



PCB SPILL, BATH ELECTRICAL SYSTEMS INC, Richwood, Brazoria County, TX

Sample Plan 5. Soil samples from the BES, Inc. Parking Lot at the Spill Site (BESP 36, 37, & 38) were taken on Sept. 24, 1985 after the second round excavation of PCB hot spots.



# PCB SPILL, BATH ELECTRICAL SYSTEMS INC, Richwood, Brazoria County, TX

Sample Plan 6. BES, Inc., PCB Spill. Two samples were taken from the parking lot spill area after third excavation on September 27, 1985 (BESP 38A) and removal of contaminated soil pile (BESP 05).

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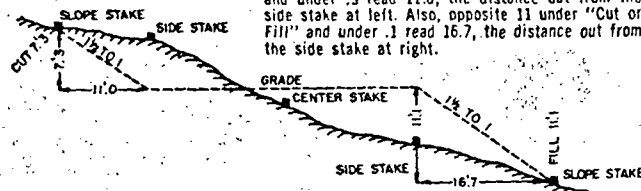
RECORD OF SAMPLES  
SUBMITTED  
FOR ANALYSIS

21-F-01848

# DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Cut or Fill
	Distance out from Side or Shoulder Stake										
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

KEUFFEL & ESSER CO.

For Curve Tables see end of book.

Field Log Book

DOCUMENT CONTROL NO. TAT-20-F-01043

WESTON-SPER

Rashid A. Khalid, Ph.D., CPSS

2155 Sorrel Avenue  
Baton Rouge, LA 70802  
(504) 346-0054

Roy F. Weston, Inc.  
SPILL PREVENTION & EMERGENCY RESPONSE DIVISION  
In association with ICF, Inc., Jacobs Engineering Group Inc.,  
C.C. Johnson & Associates, Inc. and Tetra Tech, Inc.



The paper in this book is made of 50% high grade rag stock with a WATER RESISTING surface sizing.

KEUFFEL & ESSER CO.

9/18/85.

PCB Spill

72

in the morning. BES has no funds to pay for this cleanup. 2300hrs - Mary Ellen called back. Gerald said it was ok to start in the morning.

BES will watch the site through the night.

2315 Left Site for Lake Jackson Holiday Inn.

2400 arrived at the V-hotel

Rashid Khalid

9/19/85

73

PCB analysis on 4 tanks prior to spill

Tank #1	51,590 ppm
#2	3480 ppm
#3	53,000 ppm
#4	78,000 ppm.

approx 3500 gallons spilled

Converted record from Dennis Tanaka

Rashid Khalid

9/18/85

PCB Spill

70

1610 Left airport for travel to  
Foreponto, TX to a PCB oil  
spill. Mike had called for  
us to respond since no one was  
available from the Houston Office.

1630 took Continental air line to  
Houston Intercontinental.

1740 arrived at Houston Int. airport.  
Rented a Hertz's Car.

1819 Called Kevin Jackson. He  
had called BES Inc and talked  
to Don Smith there. Kevin told me  
that Mary Ellen wanted me call  
her as soon as possible. See

Phone Conversation Record for details.

1820 Called Mary Ellen Crowley, the  
OSC. Mary Ellen told me that BES  
had vacuumed the puddles on the yard  
but had stopped vacuuming that spilled  
into the ditch. Problem with money?

The site address

5009 N. Highway 288  
Contact Tom Sodeman.

Rashid Khalid

9/18/85

PCB Spill

71

1930 Arrived at the spill site.  
Met with Orellian, Rallis  
people, and BES persons.  
Tom Sodeman and Dennis Janak  
updated on day's events.

2200. Frank Orellian left  
for Houston.

2230 called Mary Ellen Crowley.  
Updated the situation.  
BES does not have proper  
safety equipment to start  
vacuuming the ditch. Low  
probability of rain. If they can  
start work in the morning.  
She will call me back.

2300. Met with Dennis Janak of  
BES. Went over safety for  
tomorrow's work. made a  
list of articles they would  
need will pick up from  
Vallen.

BES will pursue more with  
Liberty Mutual in the

Rashid Khalid





9/18/85 Kenneth Cooper, EPA-Houston  
Mark our Incharge of Vac-  
Crew. Dennis would be gone  
in an hour. Tom is on the phone  
with the Insurance.

1016 Called Houston office  
Frank was heading to the  
PCB spill site

1018 Called Mary Ellen Crowley

Gerold Fontenot Conference Call

1016 Wanted to know any progress  
on the insurance side. none  
amount and area - give  
him rough estimates.

Space for storing material if  
EPA has to step in. yes.

Call them if any progress is  
made.

Gerold told me someone from  
TDWR should be on the site  
this morning.

Rashid Khalid

9/18/85

PCB Spill

1020 P#1 ~~down~~ from south Tank  
where pump is vacuuming oil from the  
ditch.

P#2 from North Ditch to the south dike

1046 Talked to Tom - no word from  
the insurance. Adjuster was ~~meeting~~  
with the insurance at this time.  
one water well on property.  
~ 200 feet deep.

P#3 4 empty transformers in front of  
storage tanks

P#4 furthest - 5 spill areas all tanks

H 5 - from West Rt of the spill area

#6 - from south photo of tanks with  
some diggers in them.

#7 pumping operation.

#8 spill area from the east - around  
the tree

#9 PCB storage containers -

#10 north end of the ditch

#11 north end of the ditch

crew respiratory protection very sloppy.

Talked to the crew and the supervisor

Rashid Khalid

9/18/85

# PCB Spill

36" culverts pipes

7 culverts

14 pipes 36 Diameters

1140 broken for lunch

1235 back to BES spill site

p#1 a small taped yellow puddle with oily material SW corner of property

p#2 pit center of Home of BES property line

to City Rd 7-4 - going west

#4 Bed 2 station on soil by the wall - back North

1250 completed pumping into one tank - 1000 gallons pumped out. Working on moving one more tank near another culvert for pumping.

1300 Tom Soderman told that the insurance co does not want to make a commitment at this point. He talked to the adjuster.

1300 Elaine Gray of TDWR on the site. Met her.

Rashid Khalid

9/19/85

# PCB spill

1330 Glenn at Beverly Glover

265-2268

neighbors of County Rd

7-4 - The couple was not home. Left a card for him and asked him to contact me at BES

1330 BES started pumping in the 2nd tank.

p#5 picture of storage tanks (skid tanks) from SW

#6 from south - Ditch and vac operation

#7, 8, 9 vac operation for East

5 people crew working - coveralls, boots, face masks.

1405 Insurance Co approved for a bulldozer to dig the soil.

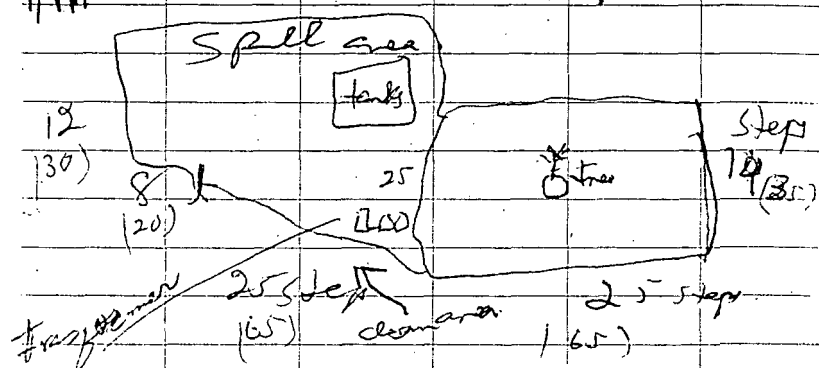
EE will be here for dollars as a Cons. to Liberty Mutual at 1646 hrs.

Larry F. of EE will be here around 430 PM.

Rashid Khalid

9/19/85

# PCB Spill



150 feet length  
25 feet width  
50 feet middle  
30 feet end  
50' x 150 feet area.

1438 hours Mary Ellen called  
conference call Ken Cooper  
No PCB stickers on 4 tanks  
What can be done to contain  
the collected materials.  
Ken related the problems BES is  
having with the insurance Co  
Gerald Fontenot → on the phone  
Gerald is going to call the  
Insurance Co.

Rashid A. Chahid

9/19/85

# PCB Spill

1500  
Meeting with Ned Winders, Don  
Smith, Ken Cooper. Discussed  
plan for cleaning up of contaminated  
oil at the spill site.  
1742 Tom Soderman had a  
conference call with Ken, Mary Ellen  
at Gerald Fontenot.  
Mary Ellen called me and told  
me on the phone, she would  
be coming tomorrow. They have  
determined after talking to the insurance  
person that even if the insurance pay for the  
third party damage - ditch cleanup, BES  
property still would be cleaned up and  
BES does not seem to have commitment  
to do that. EPA gave BES until  
tomorrow to fulfill their obligations and gave  
a list of what is not fulfilled by  
tomorrow, EPA would take over the  
site. HNU readings below background.  
Mary Ellen asked me if BES  
was doing an adequate job  
of cleanup, told her that BES  
has been very slow and has not  
acquired the necessary equipment.

9/19/85

# PCB Spill

due to lack of funds that would have expedited the cleanup. BES was not progressing with plans to complete the cleanup.

1900 left for dinner, ESE man has not showed up.

2100 back to BES.

Larry Froebe of ESE at the site. Meeting

(Terry Hickman 713-869-7951 Home  
Liberty Mutual  
Auguste Auguster 713 895-5401 Office)

Larry Froebe

Tom Soderman

Ned Winders

Dennis Janak

Jon Smith

Terry Hickman will call Liberty Mutual 7:30AM and pursue to get an approval.

Larry gave an estimate of 250,000 to Liberty Mutual. That will include vacuuming, transportation and disposal

Rashid Khadija

9/19/85

# PCB Spill

Rollins had a call yesterday and they responded.

Brought a vacuum truck, a tanker and a backhoe. put the dikes up and vacuumed about 600-800 gallons.

(Background information)

2100 Returned to Harley Inn

9/20/80

0230 Completed POL REP.

Called Western Union. Their computers are down. Operator 375 will call me at 0600 hrs.

0600 Western Union called.

transmitted the POL REP

0655 completed the POL REP.

Called Home ad Sharon - gave Thursday overtime hours.

Call Long Dzung. He is on the way to the office. Left called office not there yet. Called his beeper and left Friday Inn II

Rashid Khadija

9/20/85 PCB spill

0800 Called Mary Ellen told her that E & E the consultant has advised Liberty Mutual to immediately start cleaning up. will hear from the Insurance Co by 0830 or so. will call her as soon as I get the word.

0850 arrived at the spill site. Don Smith, Tom Soderman - informed me that Liberty Mutual has agreed that they will cover third party loss. BES will sign contract for total cleanup.

Terry Nickman and Larry Froebe talked this morning at 0830 hours. Rollins will sign with BES and keep cost of ditch cleanup and property site cleanup separate.

8500 gallons has been pumped out so far.

Rollins has indicated (Ned) that Rollins will proceed only if written guarantee is attached to the purchase order issued by BES to Rollins.

0915 Gerald Fontenot is on the phone with Tom Soderman and Larry Froebe.

R. Khalid

9/20/85

1005 Tom Soderman told that Rollins has started their vacuum trucks moving from Houston to the spill site. 1010 called Dallas TAT. Told Mike the situation.

1015 Larry Dzyuk. He will be coming in with Mary Ellen tomorrow.

1035 p.H. 12 2 crew members cleaning the ditch, winds out of the E, SE.

1040 all crew out of the cleaning area.

1100 Walked with Larry Froebe and Don Smith to the back of the yard checked possibility of stopping the zone.

1130 Larry and I left for downtown. Checked out of the Hotel had lunch.

1230 back to the office. Learned that Mary Ellen was in Houston will rent.

1300 Larry Dzyuk

1305 Hard copy dispatched. Rollins has not received yet.



9/20/85 Meeting

ME. Crowley

Larry Froelbe

Larry Dzuik

Don Smith

Jesse Hicks

R. Khalid

### Rollins Plan

1) free water will be picked up

2)

$4 \times 600 = 2400$  cubic feet

4 cubic feet per running foot.

Larry Froelbe made a call

to Mr. Frobiak. nothing has  
come through that is meaningful.

A lot of phone calls has gone at  
Rollins and at a Liberty Mutual.

1511 Rollins is signing a total

Contract and then BES and

Liberty Mutual will split the  
cost.

Rashid Khalid

9/23/85

# PCB Spill

88

1600 left office to the airport  
to go to Houston, TX and then  
drive to Richwood where  
BES Inc had a PCB spill  
1630 left Airport in Continental  
1735 arrived at Houston Intercon  
Rented a Hertz car. was set  
to meet Larry Ozink at Reed  
Road just south of I-610  
loop.

1855 wait at the Reed Rd junction

1900 Meeting w/LD at  
All digunk was gone.

17 + 11 + 16 Truckload  
all trucks left for Beatty, Nevada.  
All ditch is clean.

6-8 PM within the ditch  
FAS north end sampling  
Berg level - sampled  
Call David Barker, Austin  
after all results are in.  
On-site - problem.

BES does not have money  
to pay. Soil is piled at  
two places. soil is covered with plastic.

Rashid Khalid

9/23/85-

# PCB Spill

89

sampled ditch at 20 foot  
intervals - marked.

Last sample was taken at  
5:00 PM.

EPA under TSCA requires that  
PCB contaminated material  
would not be stored for more  
than 90 days.

BES Inc is having difficulty  
getting enough money to ship for  
disposal and disposal costs.  
EPA requires that storage of soil be  
in containers. Need to get BES  
acquire enough boxes to temporarily  
store the soil under disposal.

1940 left Reed Rd to Lake Jackson  
2020. Stopped at BES Inc Spill  
site. Talked to Tom Soderman  
and Don Smith (Smithie). They are  
waiting for results. Called at  
2000 hrs. Should be in by 2300  
hrs. Rollins is gone for the day.

Plan to spread 6 mil plastic  
on the ditch if it rains heavy  
Rashid Khalid

arch  
6635-



90

9/23/85 PCB Spill

Told Jim Lucas Stayright  
the Lake Jackson Holiday Inn.  
Call me if there is a  
problem -

2130 Checked at the Holiday  
Inn.

9/24/85 0730 left hotel.

0800 arrived at the BES  
Site.

Bill Looney of Hollins in the office.  
Has not received the results yet.

0808. Bill Looney called the  
Lab. Results should be in by  
0900 hrs. Lab had some interference  
had to clean the samples and  
concentrate these.

~~Joe~~ Joe Kresse

M. B. A. Labs

Micro Biological & Biochemical

Assay Labs.

340 S. 66th Street

P.O. Box 9461

Houston, TX 77261

713-928-2701

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9/24/85

0820 Tom and Don Smith in  
the office

0830 Larry F / R.K. toured the  
ditch.

P.H. W 75 ditch

P# 2, 3, spill area E → W

0855 met with Tom Sademan  
and Don Smith

Mud tanks - check on availability.  
Smithie will call.

BES has talked to Waste Processors.  
Have gotten prices. Checking on the  
availability of trucks.

good possibility of hauling two  
trucks out

BES is expecting Rick of Waste Pric  
anytime this morning. will know  
of the estimate of soil piled on  
the yard

Reed Khadd

9/24/85

# PCB Spill

92

0924 Called Mary Ellen Crowley.  
David Barker

512-463-7727 Austin, TX

713-479-5981 E.G. Tom Kerns.

\* Have them scrape the soil  
from the side of the ditch. would  
need to go for PCB disposal

\* Grade the ditch -

\* Take out the graded soil  
into the part of the ditch which  
have higher levels.

Make contingency for rain.

Give her a call as soon as

results in

1020 Called Larry Zink

Dave Sullivan maintained that

PCBs are not regulated under RCRA  
and it is still under TSCA

I will call Darryl Mount and check  
on storage and RCRA regulations

Larry told me that when the bull-  
dozers excavated the ditch the moving  
equipment - loading trucks were  
on plastic liners. As the ditch

93

got cleaned they rolled the plastic  
into the ditch, picked up, and  
loaded. Any loose soil on the  
E side of the ditch was also collected  
and loaded. They did that syste-  
matically as the cleanup operation  
moved southward. This would  
suggest that the side of the ditch  
is adequately free of contaminated  
soil

1030 data on 12 soil samples is  
back. 4 samples in the yard.  
Samples # 2, 3 and 4, has hot  
spots (levels  $\geq 50$  ppm)

✓ BES has started digging the hot  
spots to 3-4 inches depth. will  
take composite samples and analyze.

1040. Talked to Bill Looney, Larry  
Froese and Ned Winters.

Contingency to cover hot spots in the  
ditch. No possibility of heavy rains  
today or tomorrow. Isolate with dikes.

Results may be delayed until  
tomorrow or Friday. will try  
to isolate and cover 20-ft

11 Branch  
21-6635

9/24/85

## PCB Spill

94

Sections of determined hot  
ditches around sections and cover  
with plastic

C. C. Hughes

R. A. Kees

Inspector

Brazoria County Health Dept.

1130 met with them -

Concerned about the sides of the  
ditch -

Levels for Cleanup etc.

1200 Broke for lunch

1315 back to BES

1335 Sample # 36 near the trees  
where original sample #1 P was taken  
P #7 of Sample # 36

P #8 Sample # 37 where BES #2  
was taken the other day.

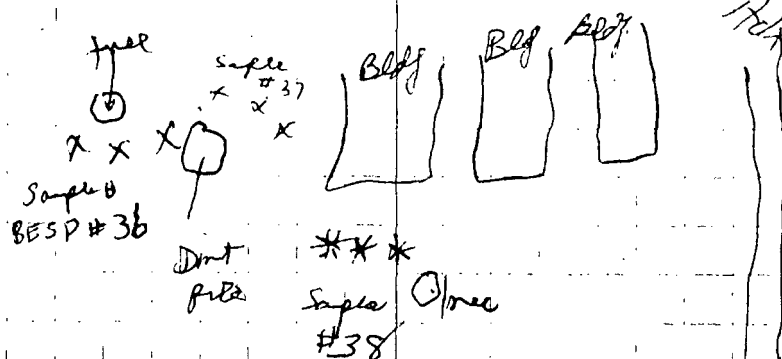
Earlier Results on BES #1 → 4 indicated  
soil samples # 1 → 3 had levels greater  
than 50 ppm. BES had dug some more  
in the area of hot spots and added  
this to the earlier file.

Rashed Khalid

9/24/85

## PCB Spill

95



1345 completed taking three  
samples -

P #9 Sample # BES #38  
(original site of BES #3)

I had boots on.

Gave one to Jim - He ran out  
of boots.

Wants to send samples to Dow Chemical

1410 called Mary Ellen Crowder - updated  
~~the~~ the sampling on site after  
cleanup.

1420 called Dallas TAT. Talked to  
Scott Wright. Told him I will be  
here another night.

11 Branch  
21-6635

9/24/85

## PCB Spill

96

1425 called Baton Rouge office.  
Let them know I will be here  
overnight.

Back to BES spill site

1435 Jim Robertson of  
ENTS

Engineering & Technology Services

DOW Chemical, USA

Picked up PCB samples for analysis  
He will call me on the method of  
analysis and when to expect the  
results back. Jim told me this  
group routinely runs PCB analyses

When I called Baton Rouge, Gayle  
had told me she received  
information on a Coast Guard course  
on Incident Response to be  
held in New Orleans for one day  
on Sept 30, 1985. Told her to  
call Scott in Dallas. suggested if we  
can send two people.

R. Khalid

9/24/85

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1450 called Texas Water Commission  
Houston office 713-479-5981

Elani Gray and Tom Kerns are  
both out. won't be back until  
Friday.

called David Barker of Texas  
Water Commission. He was out  
of the office. She tried someone  
else. no luck. left a message  
for him to call me.

called TSCA Hot Line  
1-800-424-9061  
Tom Simons.

761.65 part C-1

temporary storage at non approved  
facility is 30 days. PCB has  
not gone under RCRA yet  
1520. Jim called + PCB analysis  
Hexane extraction -  
Electron Cap GC.

should be calling in by tomorrow  
afternoon.

Tom got a call from Rich. will  
send 2 Mud tanks tomorrow  
at 0800. will hold 50 lbs each

Rashid Khalid

9/24/85

## PCB Spill

98

will be able to load two trucks 30 yd each for 1 mile, A.E.

Holding those trucks if needed for further excavation of ditch.

Bill ~~and~~ Hupp Texas Water Commission

Try to get to background levels 1 ppm or less is a Dept policy left to the District level Policy - each situation is handled individually.

Texas Water Commission has jurisdiction

1600 hours left BES site.

1810 Called Tom Saderman of BES Inc. Tom had received data on PCB analysis for. Two of the samples have PCB levels over 50 ppm. Some more results will be in date this evening.

One rest by tomorrow afternoon. Tom told me that they went out and looked at the spots with high PCB results. The high spots (elevation wise) were associated

Rashid Khalid

9/24/85

## PCB Spill

99

with high PCB levels. The 20 ft segment with 335 ppm of PCB had loose soil which may have been left during excavation. BES has covered the onsite pile with plastic.

1820 Called Mary Ellen Crowley and related his results on the offsite ditch samples. She would like these areas with high PCB levels be excavated and then covered if it rains (before it start raining).

wrote a POL HS-

#2330 called western Union and send the POL REP.

Rashid Khalid

branch  
-6635-

9/25/85

OPIS Arrived at BES Inc.

Met with

Tom Soderma BES

Don Smith BES

Ned Winders Rollins

Bill Looney

got some more results on the offsite ditch. BES Inc wants to know at what level of PCBs we need to go back and excavate. Told them I will call the EPA and get an answer.

08/45

Called Mary Ellen and Gerald Fortinors - Good Morning American  
Told them the PCB conc in samples taken after initial cleanup. BESD # 10, 15 and 19 over 50ppm. At this point Gerald wants to go ahead and dig the segment with over 50ppm. Told Gerald I called Texas Water Commission and talked to Bill Rupp. He told me decision is an individual situation. Houston District would decide in this case. He would track Tom Kerns for me. Gerald and/or Mary Ellen will call TWC and let me know this morning.

Rashid Khalid

100

9/25/85

Questions need answering today.

1. Levels of Cleanup from the Texas Water Commission.

2. Do we need to cover the ditch for which results are not back yet, 0900. Rollins has requested their Houston office to send two trucks (50ft truck) and haul 3 more on standby if needed.

BES Inc. is making arrangements for Sampling after reexcavation. On-site. BES has two mud tanks 50yd each on site to load the dirt pile until arranged for disposal.

1020 one Mud Tank being loaded.

~~Four~~ Loading operator and the help man near the mud tanks have no protective clothing. Found Jim and asked him to have those men protective clothing.

P# 9 loading on site dirt into mud tank for S<sub>1</sub> → NW

# 10 Main spill area covered after excavation

101

branch  
-6635

9/25/85

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1037 Company Hauling the mud tanks on  
route

Hermann Transportation

Houston, TX 713-331-9222

Angel - Truck Driver

1-800-392-4749

p# 11 Mud tank loading operation S-N

p# 12 Mud tank loading operation S-N

1042 talked to Tom and Smitty. Discussed

the Personal Protection of two people  
working on loading the mud tanks  
with on site dirt.

Mud Tanks are lined with Plastic  
Gerald Fontenot, Mary Ellen Crowley

1120 Talked to these two people

Gerald just finished talking to

Elani Gray. Texas W.C. would like PCB  
levels in the ditch to be below 10ppm.

with regards to covering the ditch -

Excavate 2-3 inches for the ditch the known hot  
spots (>10ppm) and the area for which results are  
not in. Take samples for analysis.

cover the excavated ditch bottom with plastic.

Secure the Plastic. Remove the northern copper  
dam and let rain water drain over the  
plastic

→

9/25/85

PCB Spill

103

1143 - Called Mary Ellen.

What about PCB levels for the on-site  
Cleanup. Gerald had not checked it  
with TDWR. no Bety sample was taken  
(no permission). EPA is not forcing BES

to clean below 50ppm. If TDWR wants  
below 10ppm They will have to deal with

The company. MECrowley will try contact  
Elani Gray. Cover the on-site area.

Check with BES to who owns  
the company and the land.

→ Talked about possibility of some hot  
spots after the 2nd excavation and some  
rainwater coming in contact with soil. Due to  
high PCB adsorption and very low solubility,  
PCB transport with rain will not be  
a problem.

Checked possibility of still getting  
PCB come in ditch over 10ppm after  
this excavation. Gerald told me  
he will handle that with TDWR,  
and will not be a problem.

Call him in the afternoon.

Branch  
-6635

9/25/85

# PCB Spill

104

1330 Rollins started digging the ditch  
for Sample #8 (dist 114 feet down up  
stream from Copperdam on north end.

Scraping 2-3" soil and loading into  
a truck. Ground under the truck  
is lined with plastic

P#1 1335 South to N excavation &  
loading operation

P#2 1350 vacuuming water from the  
ditch prior to digging.

P#3 panoramic of ditch Out 1410 hrs  
1400 hrs. Loading on Mud tanks at  
the on-site dirt pile restarted.

1410 P#5 loading operation on-site  
facing North - 2nd Mud Tank  
being filled.

1415 called Baton Rouge TAT. Gave  
my hours. Told to file Kevin's

1430 Tom wanted to know if we  
can help find appropriate DOT  
regulation to transport PCBs. Specifically  
Mud Tank 5.

1445 on-site PCB sample results back one  
sample still over 50 ppm.

Rashid Khed

9/25/85

# PCB Spill

105

1515 hrs. digging of soil from the ditch  
still in operation. Truck resting  
on 6 mil plastic. Bucket loading  
the truck. The man in the loader is  
not adequately protected. Regular glasses  
a singless and gloves and short sleeves.  
The man is down wind.

Vacuuming liquid (rainwater) is also  
in progress.

1521. 2nd truck loaded and  
rolled off

1531

Gayle called

CFR 49173.510 transport  
of Haz. wastes. no problems

40 CFR 761.60 check

761.65 check.

State 925-6113

Non liquid PCBs

49 CFR 178.115

Specification 5B containers

Alternate 178.82

Containers larger than 5, 5B, 17C

Must satisfy DOT requirements

Rashid Khed



9/25/85

106

1640 BES Inc started sampling  
Bottles marked with A's and  
kept the original numbers.

Jim Scott

Dennis JANAK and two more  
people sampling. Samples a  
grab at one spot where flags  
were raised at the original  
sampling at the end of 1st excavation.

BES

Company officials

Thomas F. Soderman President

Bobby ~~Fielden~~ Fielden

Dennis Janak, V.P. Marketing  
V.P. Operations

Evelyn Arnt - ~~V.P.~~ Director, Admin. Services

John Birch, V.P. Finance  
Controller

Six major stockholders

6th Don Smith - 15%

9/25/85

PCB Spill

107

1735- Loader taking the ditch cover  
to Industrial Insulators out.

Area of Saph. BESD 2 → 21 covered  
with plastic.

1845 digging continues.  
vacuuming of ditch with in front  
of the loader also goes on.

Called Mary Ellen, not home,  
a recording goes on.

2015- Excavation still continues.  
only a small area is left.

Plastic lining of the ditch is up to  
the loader. Soil samples are also  
taken to this point.

2015- finished writing POL REP #6

2048 Digging completed.

buckets being decent

2100 left for dinner.

2200 back to the site

2240 All PCB results are in.

Based on the data 17 soil samples

( > 10ppm) for the ditch that were taken

This evening need to be sent for analysis.

Filled Chan 7 custody form

9/25

PCB Spill

108

2330 left BES site.

2400 arrived at the Holiday Inn.

9/26/85 Left Hotel at 0800

0815 arrived at the BES site.

checked samples that need retaking and area that need rescrapping -

sample # 12, 13 A (Flag 12, 13) need scraping and sampling

Staked the Flags 12, 13 for scraping.

0915 Started digging with bucket, a Rollins operator.

P# 9 digging operation S - N

P# 10 digging operation N - S

1000 P# 11 Skid takes miter on the yard by spill site. Some have locks, the others don't.

1105 loading of truck for Flag 12, 13 started. ditch side of the truck is lined to the ditch to catch falling soil from the swinging buckets.

9/25/85

PCB Spill

107

1020 Jim Scott and group sampled area at

1120 Flag 12 sample BESD 12A  
1120 13 13A

1140 Flag 18 18A

1140 Flag 21 21A

1045

Daryl Mount. EPA called EPA policy

for material spilled which was over 25 ppm. in industrial situations. But in situations where it is difficult to bring down to 25 ppm, there is flexibility but EPA would like the spill area bring down to under 25 ppm. This as a draft policy which is going to be finalized

1200 left to check out and have lunch.

1400 back to BES spill site

one load from the onsite (40 foot truck) is taken out. Still 1 1/2 - 2 trucks load remain on the ground.

Rashed track

9/26/85

BES is getting a mud tank for storing the soil. Should get here by this evening.

Tomorrow, all the soil will be loaded and the site scraped.

1440 Met with Tom Sudman. Told him I will be gone. Went over the plan to dig some more soil.

9/26/85

1458 Called Mary Ellen Crowley.

She talked to Tom Kerns at TWC.

They have made limits for onsite.

BES need 2 copies (fine) and distribute. Copies of all Results. need to

Send 1. EPA Emergency Response

2. EPA TSCA

3. TWC

I don't know 4, Liberty Mutual and fifth I am not sure.

Tom Kerns was supposed to call here for me. Mary Ellen Crowley talked him at length. They were supposed to come on site.

1510 left BES site for Houston.